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HOUSEHOLD INCOME, RENT AND RATES

An analysis of personal incomes yields different results according to the definition of the elementary unit, or group of persons, whose characteristics are measured. The tax authorities count each individual separately—if he has an assessable income above the exemption limit—with the exception that a married couple is treated as one person. In the Savings Surveys organised by the Institute of Statistics the final unit (called an ' income unit ') is either a single person of 18 or over, or a married couple, together with their children under 18, if any.

For many purposes, however, it is more convenient to group people into households. A large part of total expenditure is incurred on behalf of the household as a whole—for example, home-consumed food, housing, fuel and light and household goods—and the amount attributable to each member of the household cannot easily be determined. Some items of expenditure are practically indivisible : each household must have at least one room or set of rooms, and the need for household equipment, radio and television sets, motor cars, and so on, may not vary appreciably with the number of people in the household. Moreover the cost of feeding, clothing and warming each extra person will usually decline as the size of the household increases.

It is therefore of some interest to examine the distribution of household income and expenditure. In this article we shall provide estimates, derived from the data collected in the 1952 Savings Survey, of the distribution of household income, before and after tax, and of household expenditure on rent and rates. Almost all of this is completely new information, throwing light on a field which has hitherto been largely the subject of speculation.

Source and Method

For the purpose of the Savings Survey we drew a national sample of separately rated dwellings. In each house the number of households was ascertained (if possible) and an interview was attempted with each of the income units of which the households were composed, up to a limit of three complete households in any one address. If the response has been perfect we should have had a full record of the income of each household falling in the sample. As it was, an appreciable number of complete households were missed; and in some cases, where a household contained more than one income unit, some of the income units were interviewed and others were not.

There was obviously nothing to be done about the missing households, except to hope that they were distributed in approximately the same manner as the whole population. The incomplete households, however, presented a different problem. It was important not to throw away any more information than was absolutely necessary. The original sample consisted of 2,598 income units, of which 1,919 were heads of households (or primary income units) and the remainder were secondary income units. Amongst the latter were 75 income units belonging to households in which the primary income unit had not been interviewed. Since the questions about housing tenure and expense were addressed only to heads of households, all these 75 cases had to be discarded. On the other hand, there were a similar number of households in which one or more of the secondary income units was missing. It was possible to estimate the income, before and after tax, of most of these missing secondaries, on the basis of information available about their age, sex, occupation, and the like. We were thus able to prepare reasonably reliable estimates for 1,899 households. It is these households that form the basis of the data presented in this article.

The definition of a household used in this analysis differs slightly from the normal definition : it includes all the people who live in the same dwelling and share in the same housekeeping unit, *with the exception of boarders.* ‘ Lodgers,’ who are defined as people who rent part of the dwelling but take no regular meals with the common household, are, under the standard rule, treated as separate households. But boarders are normally included in the household with which they board. In this study, however, it seemed inappropriate to add the income of boarders to the income of households to which they were totally unrelated. As a consequence, in those households in which boarders were interviewed—18 households in all—the boarders were omitted. One quarter of their payments for board and lodging, however, was counted as profit in the income of the remainder of the household.

In order to put the data on a household basis, it was necessary to go back to the original forms relating to income units, to match up the forms for each household and to transfer the data on to a new set of forms designed for the purpose. On each household form we collected the following information :

(1) the serial number, indicating the place of interview and the stratum of the sample,[1]

(2) the occupation of the head of the household,

(3) the household's housing tenure, distinguishing owner-occupiers and tenants of the following types : those paying for unfurnished council houses or flats (whether permanent or temporary), those paying for other unfurnished accommodation, those paying for furnished accommodation and those living rent free,

(4) the number of persons in the household, excluding boarders,

(5) gross household income for the year 1951-52,

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[1] The sample of dwellings drawn in each area was stratified by rateable value in two groups—houses rated £30 and over and houses rated less than £30.

(6) total liability for direct taxes, including national insurance contributions,

(7) estimated annual rates payable on the household accommodation,

(8) for tenants only : gross annual rent, including rates and water rates.

Gross income was defined in the same way as in the Savings Survey : it included all income from employment, business and property, and from government and private transfers. It is called *gross* to indicate that it is before tax. Income from the ownership of business or other assets was taken net of the statutory allowances for depreciation and maintenance. The annual value of owner-occupiers' property was not included in their income; nor was mortgage interest deducted. Household income was taken to include rent from sub-letting unfurnished rooms, two-thirds of the proceeds of letting furnished rooms and a quarter of receipts from boarders. The private transfers included were regular allowances from relatives or friends : irregular gifts or windfalls were not regarded as income. Income in kind was excluded, except in the case of farmers, where an estimate had been asked for of the value of produce consumed in the home.

Liability for direct taxes was estimated on the basis of the information available about each person's income from different sources, allowance being made for the reliefs to which he was likely to be entitled. The taxes included income tax, surtax and compulsory national insurance contributions.

The rates payable by each household were estimated in the following manner. The rateable value of each dwelling was known, since it was recorded at the time of drawing the sample. The poundages applicable in each area, in the financial year 1951–52, were taken from official sources and applied to the rateable values.[1] By this means we discovered the rates payable for each dwelling. Where there was more than one household in the dwelling (strictly speaking, in the ' rateable unit '), the rates were allocated so far as possible according to available information on the gross rent paid by each household, or its relative share of the accommodation. In the last resort the rates were divided equally. Where the ' rateable unit ' covered business premises as well as living space, as in the case of a combined shop and flat, the occupier was sometimes able to divide the total rates, or rent, between the two parts. But, in general, we had to estimate the division of the rates for these premises, the usual rule being to allow one-third for the living space and two-thirds for the business section.

There was a further difficulty with some of the poundages where, as in the Scottish Landward Areas and Rural Districts of England and Wales, the poundages vary within the administrative area. For the former we used the published averages; for the latter, the mid-point between the highest and the lowest figure for each district. In some of the Scottish Cities and Burghs the published rate refers to the highest rated area of the town, and when we had evidence—as we sometimes did from the answers to our direct question about rates—that the dwellings in one part of the town were paying at a lower rate, we reduced the poundage applicable to that part accordingly.

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[1] The sources for the poundages were : *Rates and Rateable Values in England and Wales 1951–52* and *Return of Rates in Scotland 1951–52 and 1952–53.*

The rates estimated in this manner are the rates covered by the published poundages. In Scotland they include domestic water rates, but not in England and Wales. The gross rent recorded for tenant households includes rates and water rates. Each component was asked for separately, but most weekly tenants could give only a combined figure for their gross rent. This is the chief reason why we calculated rates in the manner described, rather than relying on direct information; but whenever such information was available, it was used as a check on the calculated figure.

The 1,899 forms, on which the data were recorded, were sorted into 136 groups, or cells, each of which contained households of a specified occupation, housing tenure and gross income range. The numerical information for each of these cells was then aggregated, allowance being made for the different effective sampling rates in the two strata of houses. The data on households living in houses rated at less than £30 were weighted up to compensate for the lower effective sampling rate in that stratum. The rest of the analysis was simply a process of combining the summary forms in appropriate groups and adding up each aggregate. Estimates of household averages for each characteristic were obtained by dividing the appropriate aggregate by the weighted number of households in the group.

The Number of Private Households and their Characteristics

We estimate that, on a strict interpretation of the definition of a household, there were at least 15 million private households in Great Britain, in April–May 1952. This differs from the figure obtained in the 1951 Census, which showed only 14½ million private households; but there is reason to believe that census enumerators are not so rigorous as survey investigators in applying the definition of a household, and especially in splitting off ' lodgers ' as separate households. The total population in private households, according to the census, was just under 46½ million in April 1951; and a year later, at the time of the survey, it would probably be a little over 46½ million. The average number of persons per household, according to the survey, was 3.06, and this suggests that the number of survey households in existence in the spring of 1952 was perhaps as high as 15¼ million.

In earlier articles, presenting the results of the Savings Survey on an income unit basis, it was assumed that the total number of income units in private households in Great Britain was about 22 million. This figure may, however, be too large. Taken in conjunction with our estimated total of 15–15¼ million households, it implies that the number of income units per household is between 1.44 and 1.47. According to the survey, the results of which are derived from the sample of successfully interviewed income units only, there are 1.35 income units per household; but when account is taken of the less satisfactory response of secondary income units it seems likely that the true number of income units per survey household is nearer 1.4.

Even so, the total number of income units in private households cannot consistently be estimated at more than 21–21½ million.

Our original estimate of the number of income units in private households was derived from the results of the 1951 Census. The total number of income units should be equal—with some slight adjustments—to the sum of the number of single persons of 18 and over and the number of married couples. But there are two major difficulties in interpreting the census figures. The first is that the figures so far published do not distinguish the number of married couples living in non-private households, *i.e.*, in hotels, boarding houses, hospitals, schools, etc., from those living in private households.[1] And the second is that there is an ambiguity about what is meant by a ' married couple '. The census figures show the total number of males and females describing themselves as married, and, in a special table, the number of married couples registered at the same address on census night. The difference between these two estimates of the total number of married couples, amounting to nearly a million, may not all be due to the temporary separation on census night of husbands and wives normally living together.

An additional complication is that for the purpose of the survey any couple living together as man and wife was assumed to be married and was counted as a single income unit. But the number of *de facto* married couples is probably in excess of those married *de jure*. Hence the number of married couples, on a survey definition, is certain to be larger than the number of married couples recorded in the census as living at the same address on census night, and could even exceed the total number of persons registered as married. This last would depend on the balance between the number of married persons who are separated and the number of non-married persons living as if married. Every increase in our estimate of the number of married couples reduces our estimate of the total number of income units, since two adults count as two income units when they are single but as only one when they are married. In view of the above considerations, therefore, it is quite possible that the total number of income units in private households is closer to 21 million than to 22 million.

The estimated distribution of households according to housing tenure and the occupation of the head of the household is given in Table 1. Out of the approximate total of 15 million, nearly 4½ million are estimated to be owner-occupiers, between 2½ and 3 million live in council houses, over 6½ million are tenants of other unfurnished accommodation and about one million occupy furnished accommodation or live rent free.[2] The estimated number of owner-occupied *houses* is equal to the number of owner-occupiers, but the number of the other types of households gives no direct guide to the number of dwellings which they occupy.

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[1] The only figures available at the time of writing are those published in *One Per Cent Sample Tables.* Eventually, no doubt, the information needed to settle this point will be published.

[2] In *Houses—the Next Step,* Cmd. 8996, published November 1953, the government estimate the number of owner-occupied dwellings in Great Britain as 3¾ million. They quote no source for these figures, and it is difficult to reconcile them with information available from other sources, e.g. *The Hulton Readership Survey.*

The analysis of households according to the occupation of the head of the household reveals that about 8 million are headed by manual workers, the remaining 7 million being about equally divided between the salaried and self-employed and the retired and unoccupied. This last group is doubtless very mixed, both on account of the variations in the previous occupations of retired people and because many households in this category contain active earners, even though a retired person is the head.

In Tables 2 and 3 these estimated numbers of households are expressed as percentages of the row totals and the column totals respectively. They show at a glance how the proportions vary. For example, we find that over a third of owner-occupiers are manual workers, although only one in five of manual workers is an owner-occupier. Nearly 70 per cent of council tenants are manual workers; but only one in four of manual worker households lives in a council house. Nearly half the salaried and self-employed are owner-occupiers and a third of the retired and unoccupied are in the same category. An appreciable proportion of each of these groups lives in council property.

Estimates of the average size of each type of household, given in Table 1, show that households living in council houses are, on the average, a good deal larger than those living in any other type of property. This might be thought to be due to the preponderance of manual workers' households in council houses, since manual workers' households are larger than others. But, although there is some influence from this direction, the tendency for households in council houses to be larger than those living in other property is found equally in each of the occupational groups into which our sample is divided. This is, no doubt, partly a reflection of the fact that the selection of new council tenants is weighted in favour of young married couples with children.

The results for the different occupations can be compared very roughly with data available from the 1951 Census. By combining households of appropriate ' socio-economic groups ', as defined in the census, it is possible to collect the census figures under three occupational headings similar to those used in this analysis. Grouped in this manner, the census results show 8½ million manual worker households, 3¾ million households headed by salaried and self-employed persons, and just over 2 million headed by retired and unoccupied persons. This last group in the census is a residual, labelled ' Not Classified ', and it is evident that whenever a retired or unoccupied head of a household gave any indication in the census form of his previous or normal occupation he was classified according to that occupation. Thus a large number of households classified in the survey as headed by retired and unoccupied persons were classified in the census under one or other of the specific occupations.

From the census, again, it can be estimated that the average number of persons in all civilian private households is 3.21. The average varies from

TABLE 1

Number and Average Size of Households in Great Britain, April–May 1952, Analysed by Housing Tenure and Occupation of the Head of the Household

Housing tenure	*Occupation of head of household*						*All occupations*	
	Salaried and self-employed		*Manual workers*		*Retired and unoccupied*			
	Number of house-holds '000	*Persons per house-hold*	*Number of house-holds '000*	*Persons per house-hold*	*Number of house-holds '000*	*Persons per house-hold*	*Number of house-holds '000*	*Persons per house-hold*
Owner-occupiers	1,640	3.18	1,670	3.20	1,140	2.19	4,450	2.93
Council tenants ...	380	3.60	1,990	4.06	510	2.80	2,880	3.79
Other un-furnished tenants ...	1,180	3.11	3,770	3.26	1,660	1.90	6,610	2.89
Furnished tenants & rent free	300	2.94	540	2.89	220	1.88	1,060	2.69
All ...	3,500	3.18	7,970	3.42	3,530	2.12	15,000	3.06

TABLE 2

Occupation of Head of Household Related to Housing Tenure (percentage distributions of households)

Occupation of head of household	*Housing tenure*				*All house-holds*
	Owner-occupiers	*Council tenants*	*Other un-furnished tenants*	*Furnished tenants & rent free*	
Salaried and self-employed ...	37	13	18	28	23
Manual workers	37	69	57	51	53
Retired and unoccupied ...	26	18	25	21	24
Total	100	100	100	100	100

TABLE 3

Housing Tenure Related to Occupation of Head of Household (percentage distributions of households)

Housing tenure	*Occupation of head of household*			*All occupations*
	Salaried and self-employed	*Manual workers*	*Retired and unoccupied*	
Owner-occupiers	47	21	33	30
Council tenants	11	25	14	19
Other unfurnished tenants ...	34	47	47	44
Furnished tenants and rent free	8	7	6	7
Total	100	100	100	100

3.11 for households headed by salaried and self-employed persons, to 3.43 for those headed by manual workers, and 2.47 for those headed by retired and unoccupied persons not otherwise classified. The census figure for manual workers' households is almost identical with that estimated from the survey, but the other figures are larger, especially for the third group. These discrepancies are doubtless due to differences in survey and census methods, both in respect of the definition of the household and in the classification of the occupation of the head.

Gross Household Income

The distribution of households according to their gross income is given in Table 4. In the same table we show, for ease of comparison, the distribution by gross income of all income units—as defined in the Savings Survey—and also of those income units which contain the head of the household.

Table 4

The Distribution of Gross Income of Households and Income Units

Gross income	*All income units per cent*	*Income units who are heads of households per cent*	*Households per cent*	*Estimated number of households '000*
Under £100	7.8	6.1	3.1	468
£100–199	16.2	13.0	9.9	1,484
£200–299	14.2	10.4	8.4	1,258
£300–399	20.6	20.2	16.9	2,541
£400–499	16.0	18.9	18.1	2,718
£500–599	9.8	12.0	13.5	2,025
£600–699	5.4	6.6	8.9	1,327
£700–799	3.1	3.9	4.8	726
£800–899	2.0	2.5	4.5	672
£900–999	0.9	1.1	2.4	363
£1,000–1,499	2.3	3.0	6.1	908
£1,500–1,999	0.8	1.1	1.9	280
£2,000 and over ...	0.9	1.2	1.5	230
Total	100.0	100.0	100.0	15,000
Mean gross income £	424	478	571	

It will be noted that average household gross income, which is estimated at £571, is 1.35 times average income unit income. This necessarily follows from the fact that there were 1.35 income units per household in the survey sample. The effect of expressing income on a household basis instead of an income unit basis is very striking. Amongst income units there are only 4 per cent with an income of £1,000 a year or over : amongst households nearly 10 per cent are above this level. Amongst income units only about 15 per cent have an income of £600 a year or over : amongst households the proportion above this level is twice as great. At the other end of the scale, 24 per cent of income units have an income of less than £200 a year, but only 13 per cent of households are in this position. Most of these households consist of single or married old age pensioners.

Tables 5 and 6 show income distributions of households of various types. In Table 5 households are grouped according to their housing tenure. Owner-occupiers have an average household income of about £760. This is

TABLE 5

Distribution of Gross Income of Households, Analysed by Housing Tenure (percentage distributions of households)

Gross household income	*Housing tenure*				*All households*
	Owners	*Council tenants*	*Other unfurnished tenants*	*Furnished tenants and rent free*	
Under £100	2	2	4	7	3
£100–199	7	7	14	9	10
£200–299	7	6	9	13	8
£300–399	14	16	20	14	17
£400–499	14	23	18	23	18
£500–599	11	17	14	10	13
£600–699	10	12	7	8	9
£700–799	8	2	4	4	5
£800–899	6	6	3	3	5
£900–999	4	3	2	2	2
£1,000–1,499	9	6	4	4	6
£1,500–1,999	4	*	1	3	2
£2,000 and over	4	—	*	*	2
Total	100	100	100	100	100
Mean household income £	759	528	477	486	571
Number in sample	610	322	798	169	1,899

* Less than a half of one per cent.

TABLE 6

Distribution of Gross Income of Households, Analysed by Occupation of Head (percentage distributions of households)

Gross household income	*Occupation of head of household*			*All households*
	Salaried and self-employed	*Manual workers*	*Retired and unoccupied*	
Under £100	—	—	13	3
£100–199	2	2	35	10
£200–299	4	8	14	8
£300–399	9	23	12	17
£400–499	13	25	8	18
£500–599	16	16	5	13
£600–699	10	11	3	9
£700–799	9	4	2	5
£800–899	8	4	3	5
£900–999	4	2	1	2
£1,000–1,499	14	4	3	6
£1,500–1,999	5	1	1	2
£2,000 and over ...	6	—	*	2
Total	100	100	100	100
Mean household income £	940	516	330	571
Number in sample ...	606	856	437	1,899

* Less than a half of one per cent.

higher than the average for tenants but it is much influenced by a small number of households with large incomes. A majority of owner-occupiers have household incomes of less than £600 a year. Households living in council houses have an average income of £528 a year, and they are fairly closely grouped around this level. The proportion of poor households in council houses is not so large as in other unfurnished accommodation, because there are fewer old age pensioners in council houses. This is one reason why the average income of council tenants is higher than the average income of other unfurnished tenants; another reason is that the average household in a council house contains more persons, and probably more earners, than other tenant households.

The analysis by occupation in Table 6 exhibits clearly the differences between the three occupational groups. The category of salaried and self-employed persons includes farmers, professional men and owners of businesses as well as managers, administrative, technical, clerical and sales employees. Their average household income is £940 a year, and one in four of them receives £1,000 a year or more. Manual workers' households have an average gross income of £516 a year, with comparatively little deviation: three-quarters of them have an income within the range of £300–700. Households headed by retired and unoccupied persons are generally at a much lower level, although in exceptional cases they enjoy larger incomes. Their average income, of £330, is much influenced by these exceptions and, as a consequence, is not a good representation of their circumstances. It is more relevant to note that nearly half of them have less than £200 a year, and three-quarters have less than £400.

Frequency distributions of the three occupational groups are illustrated in Chart 1. The diagrams are designed to show simultaneously both the distribution within each group and the relative importance of the three groups in the total population.

Direct Taxes and Net Household Income

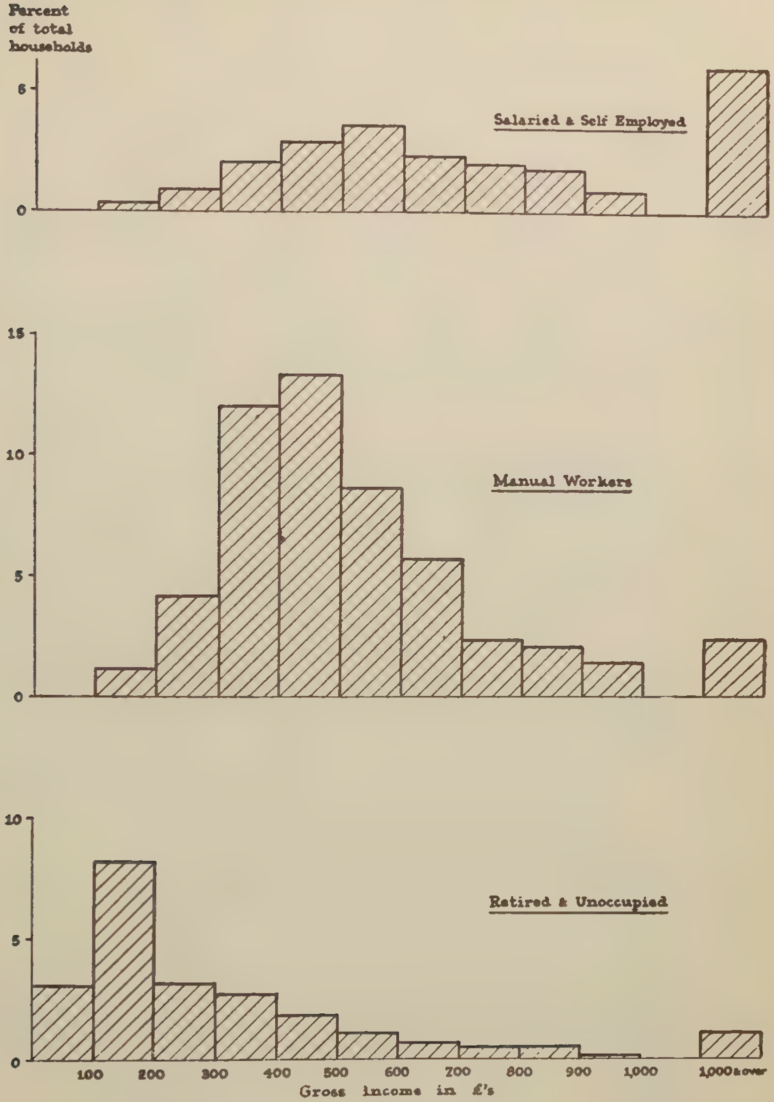
Table 7 shows the average tax liability per household of each gross income group. When this is subtracted from the average gross income of each group we arrive at its average net income. The taxes so subtracted are income tax, surtax and national insurance contributions. Net income is therefore equivalent to disposable income.

The table also contains information on the average number of persons per household in each income group, from which can be derived the average net income per person at each level of gross income. It will be noted that the size of the household increases sharply in the first four income groups, and much more slowly thereafter. The effect of this association between total household income and household size is to render the distribution of net income per person more equal than the distribution of household net income.

It is of some interest to know the distribution of household net income as such, from which can be determined the proportions of households lying

CHART 1

Frequency Distributions of Households by Gross Income



within specified ranges of net income. In this analysis, however, the procedure followed was such that it was impossible to obtain a frequency distribution of any attributes other than those used in the primary sorting of the forms. These were housing tenure, occupation and gross household income. However, the correlation between gross income and tax liability is such that it is

TABLE 7

Direct Tax Liability and Net Income at Various Levels of Gross Household Income

Gross household income	*Mean gross income* £	*Mean tax liability* £	*Mean net income* £	*Number of persons per household*	*Net income per person* £
Under £100 ...	81	*	81	1.12	72
£100–199	146	3	143	1.62	89
£200–299	256	12	244	2.17	112
£300–399	352	19	333	2.96	113
£400–499	444	26	418	3.33	126
£500–599	541	38	503	3.30	153
£600–699	645	53	592	3.68	161
£700–799	750	75	675	3.55	190
£800–899	843	101	742	3.81	194
£900–999	946	122	824	3.95	209
£1,000–1,499 ...	1,162	188	974	3.91	249
£1,500–1,999 ...	1,684	390	1,294	3.99	324
£2,000 and over ...	4,170	1,885	2,285	3.69	619
All households ...	571	77	494	3.06	161

* Less than 10s. per household.

possible to estimate the distribution of net household income by graphic means. For this purpose, a cumulative distribution of households exceeding specified levels of gross income was plotted on double-logarithmic paper (as used in plotting a ' Pareto ' curve); at the cumulative frequency level appropriate to each level of average gross income new points were plotted for each equivalent average net income; a smooth line was drawn by eye through these points; and the cumulative distribution of households according to net income was then read off. In Table 8 we give the results of this exercise, after decumulating the frequencies.

The only previous survey, on a national scale, of household income in this country was the Ministry of Labour's pre-war cost of living inquiry.

TABLE 8

Estimated Distribution of Net Household Income[1]

Net household income	*Per cent of households* %	*Approximate number of households* '000
Under £100 ...	3	500
£100–199	10	1,450
£200–299	11	1,650
£300–399	19	2,850
£400–499	19	2,850
£500–599	13	1,950
£600–699	8	1,200
£700–799	6	900
£800–999	5	750
£1,000 and over ...	6	900
Total	100	15,000

[1] These figures have been obtained by graphic interpolation and are rounded accordingly.

The inquiry was limited to households of which the heads were manual workers not suffering from long-term unemployment and clerical workers receiving salaries not exceeding £250 a year. It was primarily concerned with expenditure: no figures of household income as such were collected. But total household expenditure can be used as an estimate of disposable income on two assumptions: (1) that total expenditure has been reasonably accurately recorded, and (2) that savings, other than by contractual means, are negligible. The latter assumption is probably safe, but there was almost certainly an understatement in the 1937–38 budgets of some items of expenditure, notably on tobacco and beer. The Ministry of Labour have published an analysis of the budgets of 2,225 households—forming one-quarter of the sample of urban households—grouped according to ranges of total weekly expenditure.[1] We have used these results to compare with our estimates of the distribution of manual workers' households by net income groups in 1951–52; for, despite the difference in definition of the populations covered by the two surveys, there is enough in common between them to make such a comparison interesting.

Our estimated distribution of manual workers' households by net income groups was obtained by the same method as was used for estimating the net income distribution of all households. The Ministry of Labour's expenditure data were taken as they stand, without adjustment for possible understatement of expenditure. But this may be roughly compensated by the fact that the expenditure figures include compulsory health, pensions and unemployment contributions which, in the 1951–52 survey, were treated as direct taxes, and deducted from gross income.

The results of this analysis, which are summarised in Table 9, are very striking. They suggest, firstly, that the shape of the distribution of disposable income amongst manual workers' households has remained very stable over the period: the same percentage of total net income is taken now by each tenth of households as was taken by the same tenth before the war. Secondly, the net income of manual workers' households increased between 1937–38 and 1951–52 by about 110 per cent at each level of income. Average expenditure of all households in the 1937–38 sample was 88s. a week, or £228 a year, and average net income of households headed by manual workers in 1951–52 was £478 a year. This, again, is an increase of nearly 110 per cent. According to the estimates of the London and Cambridge Economic Service the index of retail prices advanced between 1937–38 and 1951–52 by about 110 per cent; and we may conclude that the real value of the average household disposable income of manual workers in regular employment was about the same in 1951–52 as it was in 1937–38.

It does not follow from this that the real income, or standard of living, of the working-class as a whole was unchanged between 1937–38 and 1951–52. On balance, it has almost certainly risen, for the following reasons. Firstly,

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[1] *Weekly Expenditure of Working-Class Households in the United Kingdom in 1937–38*, a duplicated report published by the Ministry of Labour and National Service in July, 1949.

TABLE 9

Comparison of Net Income (or Expenditure) of Households Headed by Manual Workers in 1937–38 and 1951–52[1]

Tenths of households after ranking by income or expenditure	*Per cent of total net income or expenditure taken by each tenth*		*Lowest income or expenditure in each tenth (deciles)*		*Ratio of 1951–52 decile to 1937–38 decile*	*Approximate number of persons per household in each group*	
	1937–38 %	*1951–52* %	*1937–38* £	*1951–52* £		*1937–38*	*1951–52*
Top tenth	20	20	343	735	2.14	4.7	4.5
2nd tenth	13	13	291	605	2.08	4.4	3.8
3rd tenth	12	12	253	535	2.12	4.0	3.7
4th tenth	10	10	230	480	2.08	3.9	3.6
5th tenth	10	10	209	437	2.09	3.8	3.5
6th tenth	8	8	191	400	2.09	3.7	3.4
7th tenth	8	8	174	365	2.10	3.6	3.3
8th tenth	8	8	157	330	2.10	3.5	3.1
9th tenth	6	6	135	275	2.04	3.4	2.8
Bottom tenth... ...	5	5	—	—	—	3.1	2.1

[1] The 1937–38 figures are derived from the Ministry of Labour's pre-war cost of living survey, and they refer to the total expenditure of households of which the head was an industrial worker or a clerical worker with a salary not exceeding £250 a year. The 1951–52 figures refer to household income after tax, as derived in this analysis. Both sets of figures were obtained by graphic interpolation of the original data.

the pre-war inquiry did not cover the long-term unemployed, whose standard of living was certainly below average. Secondly, the pre-war figures used above do not include results from the agricultural workers, whose incomes were below those of town workers. Thirdly, in household income and expenditure figures no account is taken of the real income provided by the social services. The National Health Service, for example, is worth considerably more to the average manual worker's household to-day than the services provided under the old health insurance system. Finally, it should be noted that the average size of manual workers' households fell during this period from 3.79 to 3.42, a drop of about 10 per cent. When fewer people are to be supported out of the same total income, the average standard of living may be assumed to have risen, though not necessarily in full proportion to the decline in household size.

It is impossible to assess the importance in numerical terms of these contributions to a higher standard; nor, of course, can we put implicit faith in the estimated change in the level of retail prices, though it is the best estimate that can be provided on the information available. The weight of evidence, however, goes in favour of the conclusion that the standard of living of British working-class households in 1951–52 was somewhat higher than in 1937–38.

THE INCIDENCE OF RATES AND TAXES

A peculiar advantage of this analysis is that it provides us with direct information on the quantity of rates and direct taxes payable by each household. There has been a good deal of discussion, from time to time, on the incidence of rates and taxes; but whereas a fair quantity of information has been available on the incidence of direct taxes there has been little reliable information about the distribution of rates.

We estimate that the total sum of rates payable by British private households in 1951–52 was about £210 million. This includes about £2 million of Scottish water rates, but it excludes the rates payable in respect of dwellings in which the tenant lives free of rent *and* rates. The rates for these dwellings, although presumably paid by someone, were not included in our figures because they are not paid by the tenant. The adjustments necessary to take account of these two definitional deviations are not important, and they probably offset each other to a large degree. We may therefore take the figure of £210 million as an estimate of the quantity of rates, excluding water rates, payable in respect of the residential accommodation of private households in Great Britain in 1951–52. Total rates paid on all property in Great Britain in the same period amounted to £355 million, apart from the sums paid in lieu of rates by the British Transport Commission and British Electricity Authority. We can, therefore, estimate that rates paid in respect of private dwellings represent about 60 per cent of total rates levied.

In Table 10 we give the average amount of rates and direct taxes payable by each group of households, classified according to gross income groups. The average amount of rates rise slowly from £8 per household for the lowest income group to £39 per household for the highest income group. Expressed

TABLE 10

Rates and Direct Taxes Payable by all Households, Analysed by Gross Income

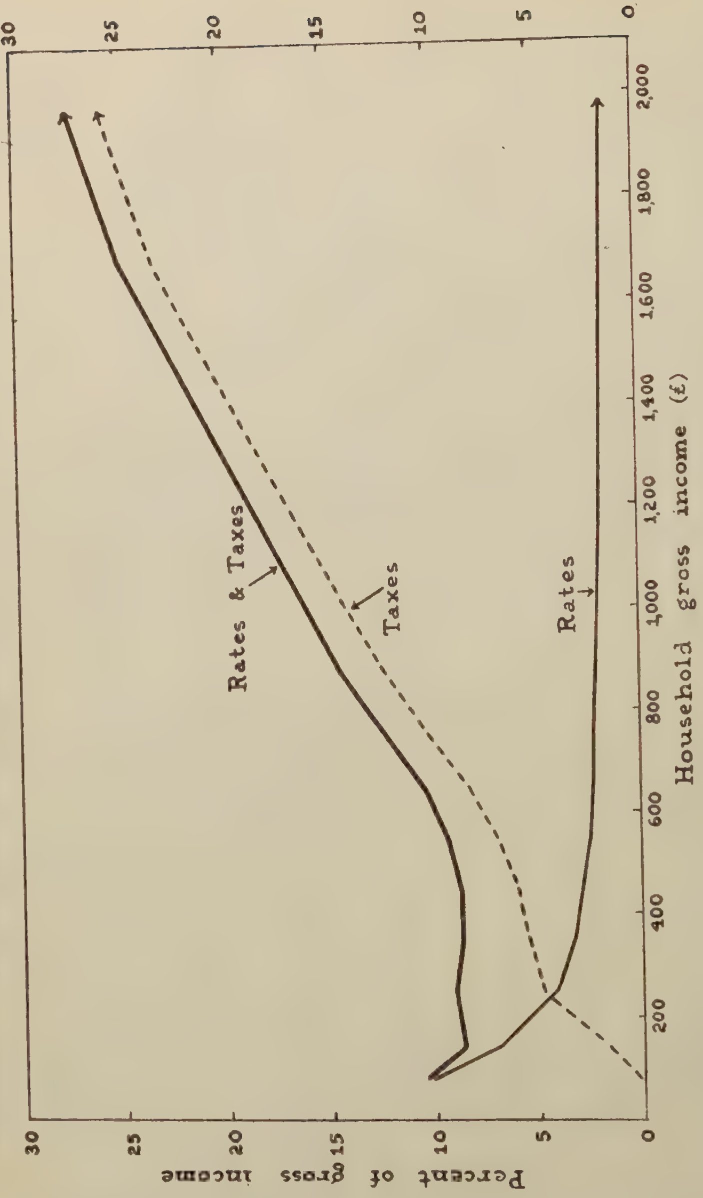
Gross household income	*Mean gross income* £	*Mean amount payable per household*			*Per cent of gross income*			*No. of households in sample*
		Rates £	*Direct taxes* £	*Rates & taxes* £	*Rates* %	*Direct taxes* %	*Rates & taxes* %	
Under £100	81	8	*	8	10.4	0.1	10.5	51
£100–199 ...	146	10	3	13	6.8	1.8	8.6	160
£200–299 ...	256	11	12	23	4.2	4.8	9.0	150
£300–399 ...	352	11	19	30	3.3	5.4	8.7	286
£400–499 ...	444	12	26	38	2.8	5.9	8.7	309
£500–599 ...	541	13	38	51	2.4	7.0	9.4	241
£600–699 ...	645	15	53	68	2.3	8.2	10.5	165
£700–799 ...	750	17	75	92	2.3	10.0	12.3	116
£800–899 ...	843	19	101	120	2.2	12.0	14.2	95
£900–999 ...	946	18	121	139	1.9	12.8	14.7	54
£1,000–1,499	1,162	22	187	209	1.9	16.1	18.0	158
£1,500–1,999	1,684	26	391	417	1.5	23.2	24.7	56
£2,000 &over	4,170	39	1,885	1,924	1.0	45.2	46.2	58
Total	571	14	77	91	2.4	13.6	16.0	1,899

* Less than 10s. per household.

Note.—The column headed 'Number of Households in the Sample' gives the actual unweighted number of households interviewed. The figures provide some indication of the degree of reliance that can be placed on the estimates contained in the other columns of the table. They cannot be used directly for estimating the proportion of households of any particular type in the population.

CHART 2

The Relation between Gross Income and the Proportion of Gross Income Payable in Rates and Direct Taxes



as a percentage of gross income, rates fall from a level of 10 per cent of income for the lowest class to less than 3 per cent for households with incomes exceeding £400 a year, and less than 2 per cent for those with incomes exceeding £900 a year. This is the well-known regressive effect of rates under the present rating system. It contrasts sharply with the incidence of direct taxation, which rises continuously both in absolute amount and as a proportion of gross income. The effects of the two types of taxation, separately and in combination, are illustrated in Chart 2. It will be observed that the average total incidence of rates and direct taxes is barely less than 9 per cent at any point on the income scale.

The relation between gross income, rates and direct taxes is further examined in Tables 11 and 12, and illustrated in Charts 3 and 4. In Table 11 we have the cumulative percentage of households, gross income, direct taxes and rates above each level of gross household income. These figures have been plotted on a double-logarithmic scale in Chart 3 and a smooth line has been drawn by eye through each series of points. The line for household income is necessarily above that for the number of households, because of the absence of complete equality of income per household. The position of the tax line, which lies above the household income line, is a reflection of the fact that direct taxation is progressive in its incidence; while the position of the rates line, below that of household income, is expressive of the fact that the incidence of rates is regressive.

TABLE 11

Cumulative Distributions of Households. Income, Taxes and Rates

Gross household income	*Cumulative percentage by income groups of:*			
	Number of households %	*Amount of gross income* %	*Amount of direct taxes* %	*Amount of rates* %
Under £100	100.0	100.0	100.0	100.0
£100–199	96.9	99.5	100.0	98.1
£200–299	87.0	97.0	99.7	91.0
£300–399	78.6	93.3	98.3	84.6
£400–499	61.7	82.8	94.2	70.7
£500–599	43.5	68.7	88.1	54.5
£600–699	30.0	55.9	81.5	41.7
£700–799	21.2	45.9	75.5	32.2
£800–899	16.4	39.6	70.8	26.3
£900–999	11.9	33.0	64.9	20.3
£1,000–1,499	9.5	28.9	61.1	17.3
£1,500–1,999	3.4	16.6	46.5	7.9
£2,000 and over ...	1.5	11.1	37.1	4.3

The figures in Table 12, which have been obtained by graphic interpolation, provide a convenient summary of the distribution of gross income, direct taxes and rates. It will be noted that the top ten per cent of households, with gross incomes of £980 and over, receive 30 per cent of total gross income, pay 62 per cent of direct taxes and 18 per cent of rates. The figures of the table are illustrated in Chart 4 by Lorenz curves, which indicate by the

CHART 3

Cumulative Distributions of Households, Gross Income, Rates and Direct Taxes

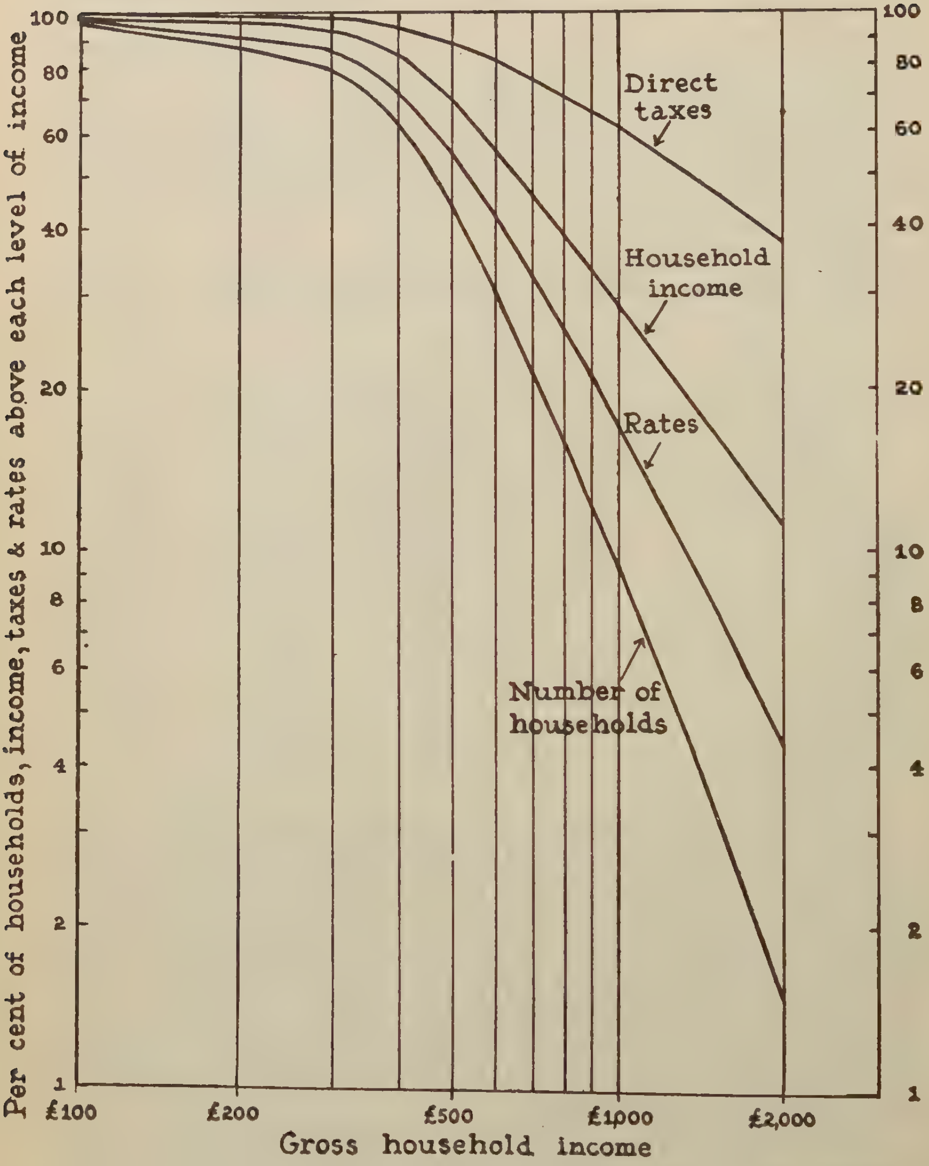


TABLE 12. *Household Income, Taxes and Rates of Tenths of Households after Ranking by Gross Household Income*[1]

Tenths of households ranked by gross income	*Percentage of each of the following in each tenth*			*Lowest gross income in each tenth*
	Amount of gross income %	*Amount of direct taxes* %	*Amount of rates* %	£
Top tenth	30	62	18	980
2nd tenth	14	12	13	720
3rd tenth	12	7	11	600
4th tenth	10	6	10	520
5th tenth	8	4	9	460
6th tenth	8	3	8	410
7th tenth	6	3	8	350
8th tenth	6	2	8	280
9th tenth	4	1	8	170
Bottom tenth	2	*	7	—

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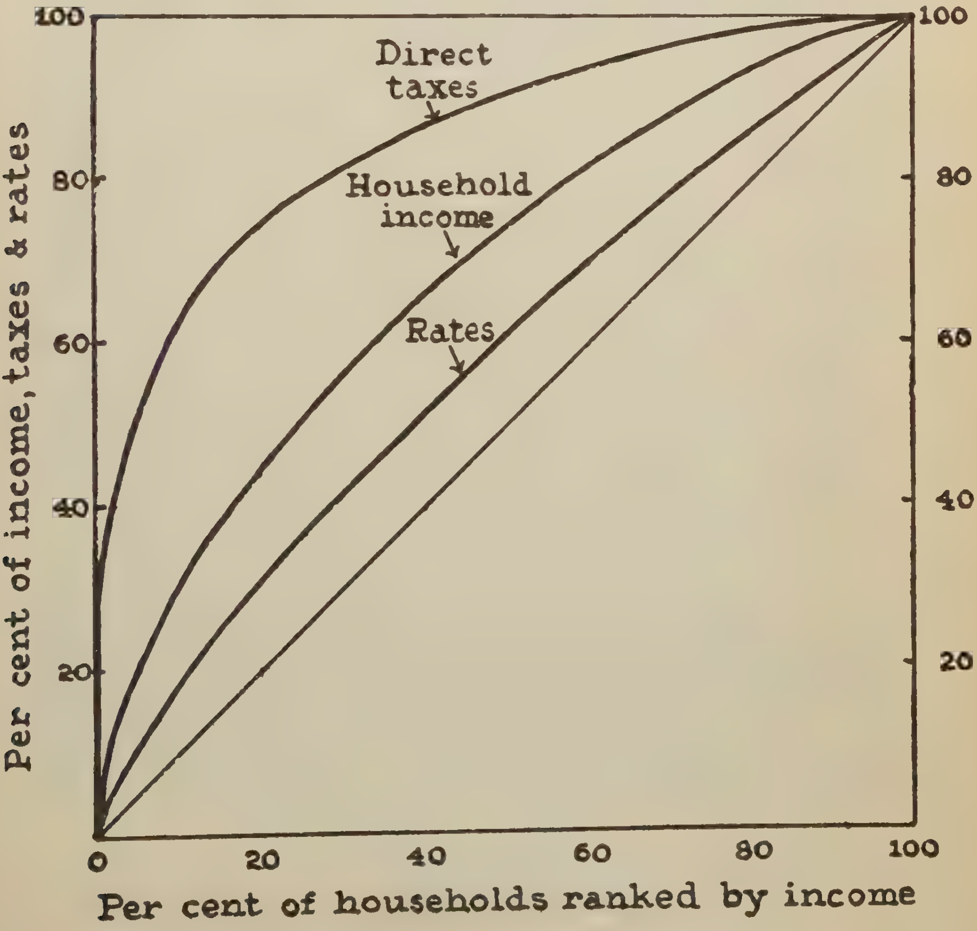
[1] The figures in this table were obtained by graphic interpolation from the original distributions. * Less than one half of one per cent.

CHART 4. Lorenz Curves of Household Income, Rates and Direct Taxes



extent of their divergence from the diagonal the degree of inequality of distribution of each variable.

The incidence of rates and taxes is further examined in Table 13 for households grouped according to three types of housing tenure. Owner-occupiers pay higher average rates at each equivalent level of income than either council or other tenants. In other words, the property occupied by an owner-occupying household of given income level tends to be more highly rated, and therefore probably of better quality, than the house occupied by a tenant household of similar income. Both for this reason, and because the average income of owner-occupiers is greater than the average income of tenants, the average rates per household paid by the whole class of owner-occupiers is above that paid by tenants.

TABLE 13

Rates and Direct Taxes Payable by Households, Analysed by Housing Tenure and Gross Income

	Mean amount payable per household			*As per cent of gross income*			*No. of households in sample*
Gross household income	*Rates* £	*Direct taxes* £	*Rates & taxes* £	*Rates* %	*Direct taxes* %	*Rates & taxes* %	
Owner-occupiers							
Under £200	13	1	14	10.2	0.8	11.0	46
£200–399	14	17	31	4.4	5.4	9.8	108
£400–599	16	37	53	3.3	7.6	10.9	130
£600–799	19	63	82	2.7	9.1	11.8	102
£800–999	21	119	140	2.4	13.4	15.8	62
£1,000–1,499	27	223	250	2.3	19.2	21.5	78
£1,500–1,999	30	409	439	1.8	24.1	25.9	34
£2,000 and over	40	1,970	2,010	0.9	46.7	47.6	50
All owner-occupiers	19	157	176	2.5	20.7	23.2	610
Council tenants							
Under £200	10	4	14	7.0	2.8	9.8	23
£200–399	13	15	28	4.0	4.6	8.6	71
£400–599	14	25	39	2.9	5.1	8.0	122
£600–799	16	52	68	2.4	7.9	10.3	60
£800–999	15	88	103	1.7	10.1	11.8	26
£1,000–1,999	17	139	156	1.4	11.3	12.7	20
All council tenants	14	38	52	2.7	7.2	9.9	322
Other unfurnished tenants							
Under £200	9	2	11	6.9	1.5	8.4	119
£200–399	10	18	28	3.1	5.6	8.7	214
£400–599	11	31	42	2.3	6.3	8.6	245
£600–799	13	60	73	1.9	8.8	10.7	96
£800–999	18	107	125	2.0	12.2	14.2	49
£1,000–1,999	19	221	240	1.5	17.6	19.1	68
£2,000 and over	40	1,257	1,297	1.1	33.7	34.8	7
All other unfurnished tenants	12	45	57	2.5	9.4	11.9	798

A similar analysis of the three occupational groups is developed in Table 14. Here, too, we find that the rates paid by the salaried and self-employed at each level of income are higher than those paid by manual workers. The average rates per household in the former class is £20 a year and in the latter £12, but as a proportion of gross household income the former pay slightly less than the latter. As a proportion of the total burden of rates and direct taxes, rates represent less than 10 per cent for the salaried and self-employed and nearly 25 per cent for manual workers. The burden of rates is most marked amongst households of which the head is retired or unoccupied. They pay, on the average, 4.2 per cent of gross household income in rates, compared with 2.1 per cent for the salaried and self-employed and 2.2 per cent for manual workers.

TABLE 14

Rates and Direct Taxes Payable by Households, Analysed by Occupation of Head and Gross Income

Gross household income	*Mean amount payable per household*			*As per cent of gross income*			*No. of house-holds in sample*
	Rates £	*Direct taxes* £	*Rates & taxes* £	*Rates* %	*Direct taxes* %	*Rates & taxes* %	
Salaried and self-employed							
Under £400 ...	11	20	31	3.6	6.5	10.1	75
£400–599	15	36	51	3.0	7.2	10.2	145
£600–799	19	69	88	2.8	10.0	12.8	113
£800–999	22	131	153	2.5	15.0	17.5	75
£1,000–1,999 ...	25	276	301	1.9	21.0	22.9	145
£2,000 and over ...	39	1,939	1,978	0.9	45.7	46.6	53
All salaried and self-employed	20	214	234	2.1	22.8	24.9	606
Manual workers							
Under £200 ...	8	11	19	4.8	6.6	11.4	18
£200–399	10	18	28	3.0	5.4	8.4	258
£400–599	11	29	40	2.3	6.0	8.3	350
£600–799	14	55	69	2.1	8.1	10.2	140
£800–999	14	88	102	1.6	9.9	11.5	55
£1,000–1,999 ...	15	145	160	1.2	11.8	13.0	35
All manual workers ...	12	38	50	2.2	7.4	9.6	856
Retired and unoccupied							
Under £200 ...	10	1	11	7.9	0.8	8.7	185
£200–399	15	13	28	5.1	4.5	9.6	111
£400–599	17	36	53	3.5	7.4	10.9	55
£600–799	16	68	84	2.3	9.7	12.0	28
£800–999	24	114	138	2.7	13.1	15.8	19
£1,000 and over ...	29	337	366	2.0	23.4	25.4	39
All retired and unoccupied	14	31	45	4.2	9.4	13.6	437

A comparison of the proportions of total income received and of rates and taxes paid by various groups of households is made in Table 15. Owner-

TABLE 15

The Proportion of Total Income Received and of Rates and Taxes Paid by Various Groups of Households

Group of households	*Per cent of aggregate for private households*			
	Number of households	*Gross income*	*Rates*	*Direct taxes*
Housing tenure				
Owner-occupiers	30	39	40	60
Council tenants...	19	18	20	9
Other unfurnished tenants ...	44	37	37	26
Furnished tenants and rent free	7	6	3	5
Total	100	100	100	100
Occupation of head				
Salaried and self-employed ...	23	38	33	64
Manual workers	53	48	44	26
Retired and unoccupied ...	24	14	23	10
Total	100	100	100	100

occupiers, who represent 30 per cent of all private households, receive 39 per cent of aggregate gross income and pay 40 per cent of the rates and 60 per cent of the direct taxes paid by private households. Council tenants pay more than their full share of rates, whether we judge by their share of the number of households or of total household income; other unfurnished tenants, as a group, pay less than in proportion to their numbers but in due relation to their income. The furnished tenants and those living rent free pay very little in rates : most of the latter appear to be paying neither rent nor rates. All groups of tenants pay considerably less in direct taxes than their share of either the population or of total income.

Analysis of the data by occupational groups reveals that the salaried and self-employed, representing 23 per cent of the population, receive 38 per cent of gross income, and pay one-third of the rates and nearly two-thirds of direct taxes. Households headed by manual workers are more than half the total, receive less than half the income, and pay 44 per cent of rates and 26 per cent of direct taxes. Nearly a quarter of all households are headed by retired or unoccupied persons; they receive only 14 per cent of total income but pay 23 per cent of rates and 10 per cent of direct taxes.

Not only is the rating system regressive but the present valuation methods vary inconsistently from one area to another. The suggestion has, therefore, been made that the rating system should be replaced by a local income tax. In order to examine the effect on different sections of the population of such a change, we have calculated how much would be paid by each group of households if the same total sum of rates as at present were raised in two alternative forms. The local income tax method could, of course, work in any number of ways; and there would probably be different rates, though perhaps not different methods, in each local taxation area. Our figures merely indicate the results of two elementary methods, which may perhaps be regarded as limiting cases. According to the first method, the rates would be raised by a strictly proportionate tax on total income; according to the second, they would be raised by a constant proportionate increase in the total amount of direct taxes paid by each household. Both results relate to conditions existing in 1951–52.

Our estimates show that the total sum of rates payable by private households in 1951–52 amounted to 2.4 per cent of household income, or to 18 per cent of direct taxation on personal income. The consequence of adopting the first alternative method, therefore, is to replace the present rates by a 2.4 per cent tax on income; and the consequence of the second method is to increase direct taxes by a constant proportion of 18 per cent. It should be remembered in this connection that the direct taxes measured here include national insurance contributions; so that all households which contain any active members of the population would be affected by the second proposal in some degree.

In Table 16 we show the effect of these two possible rating systems on different income groups. On both systems, there is a reduction in the incidence of rates on the lower incomes and an increase of incidence on the higher incomes; but the change is far more severe in the second case. The first system would have little effect on households whose total incomes lie in the range of £400–799 a year; it would appreciably reduce the payments of those with less than £400 a year and increase the payments of those with £800 a year or more. But the only sharp increases would be for those with £1,500 a year and over.

TABLE 16

Comparison of Rates Payable by Household Income Groups on Three Systems of Assessment

Gross household income	*Mean amount of rates payable per household*		
	Present rating system £	*If paid in proportion to income* £	*If paid in proportion to direct taxes* £
Under £100	8	2	*
£100–199	10	4	*
£200–299	11	6	2
£300–399	11	9	3
£400–499	12	11	5
£500–599	13	13	7
£600–699	15	16	9
£700–799	17	18	14
£800–899	19	21	18
£900–999	18	23	22
£1,000–1,499	22	28	34
£1,500–1,999	26	41	70
£2,000 and over	39	102	338
All households	14	14	14

* Less than 10s. per household.

On the second system, all households with an income of less than £900 a year would benefit to some degree, these losses of revenue being offset by heavy increases in the payments made by the upper income groups, and especially by surtax payers.

The effects of the two alternative rating systems on owners and tenants, and on the occupational groups, are displayed in Table 17. The first system would have little effect on the division of the burden between owners and tenants as such, though there would be self-balancing shifts within each group; but the second system would transfer over £40 million from the backs of tenants on to the backs of owner-occupiers, while at the same time the burden would be redistributed within each group, so as to relieve the poorer households and impose more on the richer.

TABLE 17

Comparison of Rates Payable by Various Groups of Households on Three Systems of Assessment

Group of households	*Mean amount per household*			*Total amount*		
	Present rating system £	*If paid in proportion to*		*Present rating system* £*mill.*	*If paid in proportion to*	
		Gross income £	*Direct taxes* £		*Gross income* £*mill.*	*Direct taxes* £*mill.*
Housing tenure						
Owner-occupiers	19	19	28	84	83	126
Tenants	12	12	8	126	127	84
Occupation of head						
Salaried and self-employed ...	20	23	39	69	79	135
Manual workers	12	13	7	92	102	55
Retired and unoccupied ...	14	8	6	49	29	20
All households	14	14	14	210	210	210

As between the three occupational groups, the alternative rating systems would have quite substantial redistributional effects. The principal result of the first system would be to reduce the load on households headed by retired and unoccupied persons. In this process, manual worker households would, on balance, be losers not gainers: of the £20 million of rates lifted off the retired and unoccupied, half would be taken over by manual worker households and the other half by the salaried and self-employed. On the second system, however, both the retired and unoccupied and the manual worker groups would benefit, to the extent of about half their present contributions, while the local tax burden on the salaried and self-employed would rise to double its present size.

HOUSEHOLD RENTS AND RATES

In the previous section we presented our estimates of the level of rates paid by households of different types, and we examined the relations between rates, income and direct taxes. In this section, we shall again be dealing with the problem of rates, but this time in relation to rents rather than to taxes. Previously, rates were thought of as part of the taxation system : here, they are treated rather as a component of gross rents.

One of the primary purposes of this analysis is to discover the relationship existing, under present conditions, between rents and household incomes. Rents can be treated gross, that is, including rates, or net, excluding rates. Gross rent is the price of housing paid by the consumer; net rent, in this context, is the income received by the landlord, inclusive of the cost of repair and maintenance of the property.

The original data of the survey included direct information on the gross rent payable by each tenant household. From this it was possible to arrive at net rent by subtracting rates. A difficulty arises, however, from the fact that the gross rents stated in the original returns included water rates, while the rates calculated in this analysis exclude water rates, except in Scotland. If we were simply to subtract rates from gross rent, the water rates for England and Wales would be contained in the residual. The figures of net rent were therefore adjusted downwards by an approximate formula designed to eliminate water rates.

Total domestic water rates in England and Wales appear to amount to about £26 million, of which about £15 million would be payable by unfurnished tenants of council and other houses.[1] The total number of unfurnished tenants in Great Britain (excluding those living rent free) is, according to our figures, nearly 9½ million, and their total gross rent amounts to £383 million. Of this some £118 million is payable in rates, not counting English and Welsh water rates. Of the remaining £265 million, £15 million is estimated to be payable in respect of water rates in England and Wales; and the final estimate of pure rent payable by unfurnished tenants is, therefore, £250 million. As a reasonable approximation, the net rents payable by each group of tenants were adjusted downwards in this proportion, that is, by about 5.5 per cent, so as to arrive at an estimate of net rents exclusive of water rates.

The relation between rent and gross household income, for all households paying rent for unfurnished accommodation, is exhibited in Table 18. Average net rent per household is about 10s. a week, average rates 5s. a week, and average gross rent 15s. a week. This last figure is nearly 8 per cent of gross household income. Rates represent approximately one-third of gross rent at all levels of household income. Gross and net rents rise fairly steeply from the lowest level of household income, at which gross rent is on the average £22 a year, until household income reaches £300–399. From that point onwards rents rise more slowly in relation to income. (The figures are illustrated in the middle line of Chart 5). Expressed as a proportion of household income, gross rent is a heavy item of expenditure for those in the lowest

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[1] There is surprisingly little official information on water rates, and nothing directly about water rates payable by private households. The above estimate of £26 million was obtained from certain information contained in the 1948 Census of Production Report on Water Undertakings.

TABLE 18

Rent and Rates Paid by Tenant Households, Analysed by Gross Income Groups[1]

Gross household income	*Average per household*			*Rates as per cent of rent and rates* %	*Rent and rates as cent of gross income* %	*No. of households in sample*
	Rent £	*Rates* £	*Rent and rates* £			
Under £100	14	8	22	36	26.9	29
£100–199	20	10	30	33	20.2	113
£200–299	21	10	31	33	11.8	90
£300–399	26	11	37	31	10.4	195
£400–499	27	12	39	32	8.8	207
£500–599	27	12	39	32	7.2	160
£600–699	30	14	44	33	6.8	99
£700–799	28	14	42	34	5.6	57
£800–899	37	17	54	32	6.5	49
£900–999	36	16	52	31	5.4	26
£1,000–1,499	33	17	50	34	4.4	70
£1,500–1,999	60	25	85	29	5.0	18
£2,000 and over	81	40	121	33	3.2	7
Total	26.5	12.5	39	32	7.9	1,120

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[1] The households covered by this table are tenants of council houses and tenants of other unfurnished accommodation. Households renting furnished accommodation or living rent free are excluded.

TABLE 19

Rent and Rates Paid by Council and Other Unfurnished Tenants, Analysed by Gross Income Groups

Gross household income	*Average per household*			*Rates as per cent of rent and rates* %	*Rent and rates as per cent of gross income* %	*No. of households in sample*
	Rent £	*Rates* £	*Rent and rates* £			
Council tenants						
Under £200	21	10	31	31	21.4	23
£200–399	29	14	43	33	13.1	71
£400–599	32	14	46	31	9.5	122
£600–799	33	16	49	32	7.4	60
£800–999	30	15	45	34	5.2	26
£1,000–1,999	31	17	48	35	3.9	20
All council tenants	30	14	44	32	8.4	322
Other unfurnished tenants						
Under £200	19	9	28	33	20.9	119
£200–399	23	10	33	31	10.1	214
£400–599	24	11	35	32	7.2	245
£600–799	26	14	40	34	5.8	96
£800–999	42	18	60	30	6.9	49
£1,000–1,999	41	19	60	32	4.8	68
£2,000 and over	81	40	121	33	3.3	7
All unfurnished tenants	25	12	37	32	7.7	798

income ranges, who are principally retired and unoccupied persons, but falls rapidly to less than 8 per cent for households with gross incomes of £500 a year and over.

These figures are analysed further for households of different types in Tables 19 and 20. Council tenants pay rather more in both rent and rates, on the average, than other unfurnished tenants. Council houses are not subject to rent control, and the rents of many pre-war council houses have been increased in recent years to cover higher costs of repair and maintenance. Moreover, a large part of the present stock of council houses has been built since the end of the war, so that the rents of these houses, despite the housing subsidies, are at a considerably higher level. As one might expect, the rents of council houses vary comparatively little between income groups and, with the exception of households with incomes below £200 a year—who are probably occupying the oldest types of council houses—the average gross rent paid by council tenants of all income groups lies within the range of £43–49 a year. Rents of other unfurnished houses vary much more between income groups: they are lower than council rents for households with incomes below £800 a year and appreciably higher for households with larger incomes.

In Table 20 gross rents and incomes are analysed according to the

TABLE 20. *Rent and Rates Paid by Tenant Households, Analysed by Occupation of Head of Household and Gross Income*

Gross household income	*Average per household*			*Rates as per cent of rent and rates*	*Rent and rates as per cent of gross income*	*No. of households in sample*
	Rent £	*Rates* £	*Rent and rates* £	%	%	
Salaried & self-employed						
Under £400	25	9	34	26	11.3	41
£400–599...	34	16	50	31	10.1	76
£600–799...	36	18	54	31	7.9	51
£800–999...	53	21	74	28	8.6	27
£1,000–1,499 ...	45	22	67	32	5.7	37
£1,500 and over ...	75	34	109	31	4.6	19
All salaried and self-employed	38	17	55	31	7.8	251
Manual workers						
Under £200	17	8	25	32	15.1	15
£200–399	23	10	33	31	10.1	190
£400–599	25	11	36	31	7.5	263
£600–799	26	13	39	33	5.9	91
£800–999	29	14	43	32	4.9	39
£1,000–1,999	29	14	43	33	3.6	30
All manual workers ...	25	11	36	32	7.1	628
Retired and unoccupied						
Under £100	14	8	22	36	26.9	29
£100–199	20	10	30	33	21.1	93
£200–299	23	12	35	35	13.6	31
£300–399	32	14	46	31	12.9	28
£400–499	25	13	38	34	8.4	17
£500–999	30	16	46	36	6.9	34
£1,000 and over ...	35	21	46	38	4.3	9
All retired and unoccupied	23	12	35	34	11.9	241

occupation of the head of the household. It will be noted that households headed by salaried and self-employed persons pay more rent at each level of gross income than households headed by manual workers. Moreover, the former group spend a larger marginal amount of their incomes on housing as their income-level rises than the latter. This difference of behaviour, or of consumer preference, is brought out vividly in Chart 5, where it will be seen that the line relating gross rent to income for the first group lies above the line for manual workers, and rises more steeply as income increases, especially over the range of income from £200 to £1,000. The proportion of gross income spent on housing by 'white-collar' tenant households is roughly between one-third and one-half as much again as the proportion spent by manual worker households, at each comparable level of income. This contrast in social behaviour is a fact which should be of some interest to the sociologist, in whose province lies the discussion of its probable causes.

On the average, tenants who are salaried or self-employed pay over £1 a week in gross rent, while manual workers pay less than 15s. a week. The former sum is less than 8 per cent of the gross income of 'white-collar' households; the latter is more than 7 per cent of manual workers' gross incomes. Tenant households headed by retired and unoccupied persons approximate in their housing expenditure pattern more closely to manual workers than to the salaried and self-employed. Probably the great majority of the latter group become owner-occupiers before they retire.

The rates paid by owner-occupiers of the different occupational groups at each level of gross income are shown in Table 21. Here we find a reproduction of the tendency for households headed by salaried and self-employed persons to spend more on housing at each level of income than manual workers' households: but the difference is not so great in this case as with tenants. A more marked difference is shown in the expenditure of households headed by retired and unoccupied persons. It is reasonable to conclude that owner-occupiers in this group live in houses whose cost is more appropriate

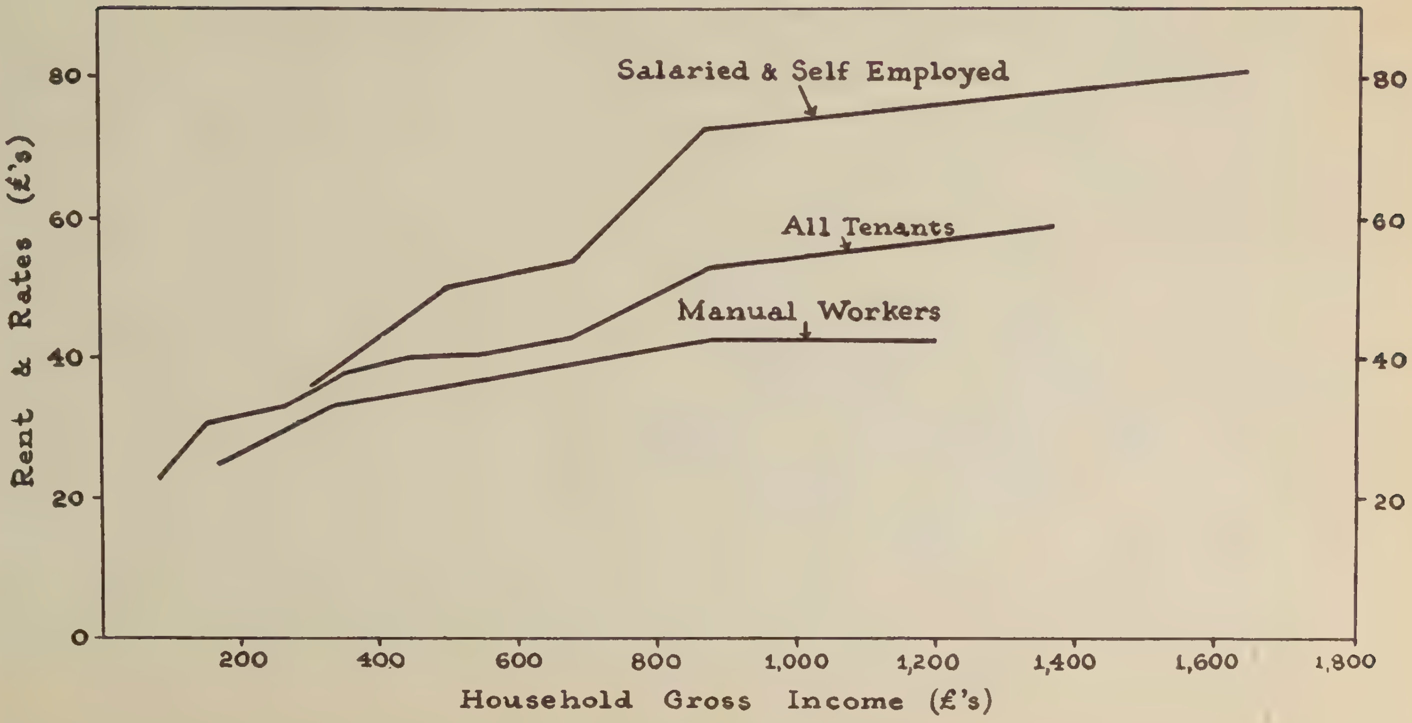
TABLE 21

Rates Paid by Owner-Occupiers, Analysed by Occupation of Head and Gross Income (average rates in each group)

Gross household income	*Occupation of head of household*				*Number of households in sample*
	Salaried and self-employed £	*Manual workers* £	*Retired and unoccupied* £	*All occupations* £	
Under £200 ...	9*	12*	13	13	46
£200–399	15	11	17	14	108
£400–599	17	13	23	16	130
£600–799	22	17	23	19	102
£800–999	23	18	23	21	62
£1,000–1,999 ...	27	25*	37	28	112
£2,000 and over ...	40	—	39*	40	50
All incomes ...	23	14	19	19	610

* Less than 10 cases in sample.

CHART 5. The Relation between Gross Rent and Income



The Proposed Increases in Rents of Rent-Controlled Dwellings in England and Wales

In concluding this study of the level of rents in relation to incomes we have thought it to be of some interest to consider the possible effects of the increases in rents proposed under the Housing Repairs and Rents Bill for England and Wales. The government have estimated that the number of rent-controlled dwellings in England and Wales is about 6 million; but they have been unable to say exactly how many will be affected by the new proposals, nor to estimate the amount of extra rent that will become payable.[1] We can, however, make such an estimate from the records of our survey ; and the results can be related to the incomes of the households affected.

The government's intention is that, where the landlord fulfills certain conditions, he should be allowed to raise the controlled rent by an amount equal to twice the statutory deduction, this being the difference between the gross value for rating and the rateable value. At the same time, a ceiling, beyond which no controlled rent can be raised, has been fixed at twice the gross value of the property. The combined effect of these two provisions depends partly on the present relation between the controlled rent of each house and its gross value and partly on the size of the statutory deduction allowed. The statutory deductions vary from 40 per cent of gross value for the smaller houses to 20 per cent for large houses outside London, and 25 per cent for large houses in London. If gross values were uniformly assessed to agree exactly with controlled rents the effect of the new legislation would be easy to predict : the rents, excluding rates, of houses with rents not exceeding £20 a year would be increased by 80 per cent, while the rents of larger houses would be increased by amounts, which, though absolutely larger, would be less in proportion.

However, the valuation lists at present in force were not constructed according to uniform rules of valuation. Although the principle governing the valuations is clearly stated—namely, that the gross value should be equal to the rent obtainable in a free market, on the assumption that the landlord bears the cost of repairs and maintenance and the tenant pays the rates—the distortions introduced by rent control made the application of this principle extraordinarily difficult, and opened the door to a system under which each local authority followed its own rules. The result was a general tendency towards under-assessment, especially of the smaller houses. This tendency was commented on by Professor and Mrs. Hicks and Mr. Leser in their study of pre-war conditions, *The Problem of Valuation for Rating*. It is confirmed by our own findings from the Savings Survey.

Thus, the controlled rents of most of the smaller houses are in excess of their gross values by a greater or smaller margin. The greater this margin the more the chance that the rent increase proposed under the new Bill will be limited by the ceiling of twice the gross value. For example, a house with a gross value of up to £20 is subject to an increase, according to the first provision of the new rules, of 80 per cent. But if its gross value is only 75 per cent of the present controlled rent the limit to the new rent is 150 per cent of the present rent, and the maximum increase in rent is 50 per cent. The introduction of this ' ceiling ', therefore, mitigates to some degree the effect of the proposed increases, which otherwise would bear with much greater severity on the smaller houses than on the larger.

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[1] The Minister of Housing and Local Government, Mr. Harold Macmillan, said, in the debate on the Address (4 Nov. 1953) : ' I cannot give the House the average figure, for one excellent reason, that I do not know it.' He added : ' Nor can anyone know it. It all depends on what is the actual present rent.'

In order to discover the probable effect of the new regulations it is necessary to know for each house its present rent and its gross value. The survey records provide us with an estimate of the present rent of each house and an exact record of its rateable value, from which it is possible to work back to the equivalent gross value. It is necessary, also, to make some assumption about the number of landlords who will comply with the conditions under which they can claim the full allowable increase. In the following analysis we have assumed that all landlords will comply with the letter of the law, the terms of which are as follows. Each landlord is required ' to show *either* that during the three years before a specified date he has spent at least six times the statutory deduction appropriate to the house *or* that during the twelve months immediately before he applies for the repairs increase he has spent at least three times the statutory deduction '. In addition, he will have to maintain the house in such a condition as to avoid the tenant obtaining a ' certificate of disrepair ' from his local authority.[1] How onerous the latter condition will prove it is difficult to foresee; but the former conditions are reasonably easy to fulfill, and the inducement of receiving a regular increase in income of twice the statutory deduction in return for a minimum capital outlay of three times the same sum is certainly adequate. There may be, however, some cases where the present rent is so close to the ' ceiling ' that there will be little advantage to the landlord in fulfilling the conditions necessary for claiming the increase.

The procedure followed in this analysis can now be described. We first selected the forms relating to households residing in England and Wales (the government's proposals for Scotland are on a different basis). From these we then eliminated: (1) owner-occupiers; (2) tenants of council houses; (3) tenants of furnished accommodation and those living rent free; (4) households living in dwellings rated at over £75 in the provinces and over £100 in London, which are not subject to rent control; (5) households living in composite dwellings, comprising both living accommodation and business premises. This last exclusion was made on the grounds of the difficulty of deciding how much of the rent or rateable value is applicable to each part of the dwelling. We were left with 638 households all of whom were tenants of unfurnished accommodation and whose rents, with an insignificantly small probability of exception, were subject to rent control.

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[1] These conditions are quoted from the White Paper, *Houses—The Next Step*, Cmd. 8996.

For each household we then calculated the effect of the new regulations according to each of the alternative formulae: (1) an increase of twice the statutory deduction, or (2) a maximum new rent equal to twice the gross value. Where there were two or more tenant households in a dwelling with a single undivided rateable value the increases and maximum rents were allocated in proportion to existing rents. The existing rent of each household was estimated by the methods described earlier, rates and estimated water-rates being deducted from the gross rent. By comparing the existing rent with the maximum new rent under formula (2) we first isolated a group of households not liable to any increase under the new regulations. Of the remainder, some households were found to be liable to pay the full amount of twice the statutory deduction under formula (1) and others to be liable to an increase of less than this, namely, the difference between their existing rent and the maximum new rent under formula (2). The weighted numbers falling in each of these three classes were then computed; and we also calculated the average increases in rent of the households liable to an increase, taking separately each of five gross income groups.

The results of this analysis suggest that there are in England and Wales about 5½ million *households* renting unfurnished accommodation subject to rent control. Since some of these are sharing dwellings, the number of rent-controlled *dwellings* of this type is only about 5 million. In addition, there are other rent-controlled dwellings inhabited by people who rent furnished accommodation or live rent free, and some composite dwellings and business premises subject to rent control. The total of these is unlikely to exceed one million, making less than 6 million rent-controlled dwellings in all.

Of the rent-controlled *households* covered by this sample, we estimate that as many as one-fifth will not be affected by the proposed rent increases, their present rents already being equal to or in excess of twice their gross value for rating purposes. This remarkable result exposes vividly the illogicalities in the present relation between rents and gross values. A further one-third of rent-controlled households are liable to have to pay increases in rents of less than the full amount, *i.e.* less than twice their statutory deduction; and the remainder—just under half the total—are liable to have their rents increased by the full amount. We, therefore, estimate that just under 4½ million households renting unfurnished accommodation are liable to have to pay higher rents under the proposals of the Bill.

In Table 22 the households liable to be affected by rent increases are analysed into gross income groups; and, for each income group, we show the estimated average and total increase in rent made possible by the Bill. These increases are, further, expressed as a proportion of the present rents paid by these households. The average increase in rent is estimated to be nearly £11 per household, and the total possible increase in rents £48 million. This represents a rise of 31 per cent in the gross rents, including 1951–52 rates, of the affected households, or 47 per cent of their present rents, excluding rates.

TABLE 22

Estimated Number of Households Liable for Rent Increases in England and Wales and the Average and Total Amount of Such Increases

			Total estimated increase in rents		
Gross household income	*Estimated number of households affected* '000	*Average increase per household* £	*Amount* £ *thousand*	*As per cent of:*	
				Present rent and rates[1] %	*Present rent only* %
Under £200 ...	800	10	8,000	38	57
£200–399	1,300	11	14,000	32	49
£400–599	1,400	11	15,000	31	47
£600–999	650	12	7,800	27	41
£1,000 and over ...	250	13	3,200	23	34
All incomes ...	4,400	11	48,000	31	47

[1] At 1951–52 poundages.

When the households are grouped according to their gross incomes, we find that the average increase per household is slightly higher for the upper income groups than for the lower income groups; but the differences are not so great as the differences in present rents. As a consequence, when the rise in rents is expressed as a proportion of present rents we find that the average percentage increase is as high as 57 per cent for the lowest income group, falling steadily as income rises, and reaching 34 per cent for those with incomes of £1,000 a year and over. This result is presumably due to the fact that the statutory deductions are proportionately much larger for low-rated houses than for houses with higher values, and that there is some association between income and rateable value. But it is somewhat surprising to find that the 'ceiling' does not act as a greater equalising influence, as between income groups, on the proportionate increases in rents.

H. F. LYDALL.

R. F. F. DAWSON.

A 'HUMAN NEEDS' DIET: SPRING 1954

Our spring survey of the cost of a ' human needs ' diet covers the period from mid-March to the end of April. As usual for the surveys of this series, the data were collected in London and a considerable number of towns in the southern Midlands. Since by July this year all rationing of food will have come to an end,[1] our autumn survey will take place in a retail market that is completely free; hence it seemed desirable to make an especially careful study of the conditions in spring so as to have a firm basis for later comparisons. This would be particularly important if the establishment of a free market were to entail substantial changes in the relative pattern of prices.

On all previous occasions our surveys of the cost of a ' human needs ' diet were confined to 'normal ' weeks, *i.e.*, weeks not including special holidays —on the assumption that although the days immediately preceding such holidays might see some abnormal and short-lived changes in prices, these were irrelevant in relation to our surveys. The objection however has been raised that we thus ignored recurrent periods of high prices of which any realistic interpretation of ' human needs ' must take account, since for those concerned the problem of cost has to be faced in every one of the 52 weeks of the year. We therefore decided this time to take careful notice of the prices of ' human needs ' foods in Easter week, in order to see whether they showed any marked change—in particular in an upward direction—from the prices charged during the other weeks of the survey period. As far as we could discover the prices of ' human needs ' foods did not go up in that week, although there were increases in the prices of certain other foods. Indeed, in some places a number of inexpensive foods actually became slightly cheaper. This applied to low-priced cuts of meat, to some kinds of dry groceries, but most frequently to the more common vegetables—obviously because the demand for these latter fell noticeably under the impact of the preparations for the holiday.

In general, fluctuations in prices—from day to day, from shop to shop—are now very common and have been for some time, whilst rationing was being lifted piece-meal and was losing its grip even in those instances where nominally it was still maintained. In our compilation of the cost of a ' human needs ' diet in the autumn of 1953[2] we allowed—for the first time in a survey of this series—for an exceptional unspecified expenditure, of 2s. 3d., to compensate for errors of judgement committed by a housewife unaccustomed to the vagaries of prices that are normal in a free market and that were probably somewhat intensified by the onset of derationing. Was such an adjustment still necessary six months later ? This question allows only of qualified answer. In the course of our spring survey we certainly came across some baffling differences in the prices of identical foods. Thus it was possible to pay for certain vegetables in one shop twice as much as in another, in the same district; for dry groceries the discrepancies were somewhat smaller, but they still amounted to from 20 to 80 per cent. However, by now housewives have had time to re-adapt themselves to the conditions that are the outcome of sellers' competition in a free market, and if they are wise, to profit by them. Hence we decided to drop the exceptional allowance—of about 3 per cent of the cost of our autumn diet—in our spring survey, in particular in view of the fact that the amount chosen to cover the adjustment was of necessity an arbitrary figure and, as such, is not easily amenable to modifications.

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[1] Rationing of all fats ended on May 8 and rationing of all meat and bacon will end on July 3. During the period of our survey the following rations were still in existence : butter or margarine, 4 oz. ; margarine, 4 oz. ; cooking fat, 2 oz. ; meat, 2s. 2d. worth ; bacon, 5 oz. (all per full person per week). All pork and most cuts of bacon were unrationed. In most shops margarine and cooking fat, too, were available without restriction.

[2] BULLETIN, Vol. 15, No. 12 : *A ' Human Needs ' Diet, Autumn* 1953.

It should, however, be borne in mind that in practice the need for some allowance of this kind can still be found to exist. There are two main reasons for that: first, some housewives are slower than others in learning to adjust their shopping habits to the new conditions; secondly, as a result in the general rise in the working class standard of living since 1939, the individual housewife's interpretation of ' human needs ' has undergone some change. There are perhaps now few household budgets, however meagre and however carefully compiled, that do not include some outlay on foods of the ' fancy ' or semi-luxury type—tinned foods, packeted mixtures for puddings and other dishes, expensive cuts of meat, etc.—considered necessary by the families in question. Foods of this kind can have no place in a ' human needs ' schedule, since to include any one of them specifically would be tantamount to endowing such food with a character of indispensability, which in fact it does not possess. Moreover, individual preferences differ widely and the many nutritionally non-essential foods are not, of course, nutritional substitutes one for another. Thus while the figures of cost computed by us can convey a fair picture of the changes in the cost of a ' human needs ' diet from one period to another, their absolute values may call for some adjustment when one is concerned with the interpretation of ' human needs ' in practice. On the other hand—as we shall see further below—a considerable degree of elasticity is inherent in the dietary pattern from which we derive our figure of total cost and the ' human needs ' dietary could, in fact, be modified so as to cover some nutritionally non-essential culinary ' needs ' within the limits of the computed total cost, without curtailing nutritionally essential consumption.

The dietary in Table I provides for the weekly needs of a family of 5 persons, including 3 children of school age. Its total cost in the period covered by our spring survey, was 63s. 7d., which was 7d. more than the cost of a nutritionally equivalent diet in the autumn of 1953,[1]—a rise of about 1 per cent. At 63s. 7d. the diet could be bought, in March and April 1954, by a reasonably efficient shopper in all the towns and districts surveyed, even though some differences obtained in the prices of specific foods.

The changes shown in the patterns of consumption and cost, from the

[1] Excluding the special allowance of 2s. 3d.

TABLE I

Weekly 'Human Needs' Diet for 5 Persons—Spring 1954

	Quantity	Average Price per Unit[1]	Changes since Autumn 1915	
			Quantity	*Outlay*
(a) Meat and Fish:		s. d.		*s. d.*
1 Meat, fresh	4 ℔	2 2	...	...
2 Bacon	12 oz.	2 10	...	— *3*
3 Sausages (beef)	8 oz.	1 10½	— 2 oz.	— *2¾*
4 Black Pudding	...	...	— 8 oz.	— *9*
5 Herrings...	2 ℔ 8 oz.	11	...	+ *5*
6 Kippers and Bloaters	1 ℔ 8 oz.	1 2	...	+ *3*
Outlay on Group (a)		*15 9¼*		— *6¾*
(b) Dairy Produce:				
7 Eggs	10 eggs	2½	+ 5 eggs	+ *2½*
8 Cheese	8 oz.	2 4	...	+ *1*
9 Milk, ordinary	18 pt.	6½	...	...
10 *Do.*, school	5 pt.	free	...	...
Outlay on Group (b)		*13 0*		+ *3½*
(c) Fats:				
11 Margarine	2 ℔ 3 oz.	1 6	...	...
12 Cooking Fat	10 oz.	1 8	...	...
13 Dripping	8 oz.	1 2	...	— *1*
Outlay on Group (c)		*4 11*		— *1*
(d) All Cereal Foods:				
14 Bread	20 ℔	4¼[5]	...	...
15 Flour	3 ℔	6	...	...
16 Rolled Oats	2 ℔ 8 oz.	9	...	...
17 Other Cereals[2]	1 ℔ 8 oz.	9½	— 4 oz.	— *4½*
Outlay on Group (d)		*11 8½*		— *4½*
(e) Potatoes and Fresh Vegetables:				
18 Potatoes...	21 ℔	2[6]	...	+ *6*
19 Greens	3 ℔	6	—3 ℔ 8 oz.	— *8*
20 Onions	8 oz.	6	— 8 oz.	— *1½*
21 Other Root Vegetables[3] ...	10 ℔	4	+3 ℔ 8 oz.	+ *1 7¼*
Outlay on Group (e)		*8 8½*		+ *1 3¾*
(f) Other Foods				
22 Dried Legumes[4]	2 ℔	11¼	...	— *1*
23 Sugar	3 ℔ 8 oz.	7½	...	...
24 Jam and Syrup...	4 oz.	1 0	...	...
25 Raisins and Currants	8 oz.	1 0	+ 8 oz.	+ *6*
26 Cocoa	4 oz.	11	...	...
27 Tea	8 oz.	4 6	...	+ *3*
28 Apples	...	...	— 2 ℔	— *8*
29 Condiments	...	1 6	...	...
Outlay on Group (f)		*9 5¾*		...
Total Outlay		**63 7**		+ **7**

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[1] The price unit is: eggs, one egg; milk, pint; cocoa, ¼ ℔ packet; condiments and extras, total outlay; all other foods, ℔.

[2] Macaroni, semolina, and pearl barley in proportion of 1 : 1 : 1. (In autumn 1953, macaroni, semolina, rice in proportion of 2 : 4 : 1).

[3] Carrots, swedes, turnips, parsnips.

[4] Peas, lentils, and haricot beans in proportion of 2 : 1 : 1.

[5] 1¾ lb loaf for 7½d. [6] ½ stone for 1s. 2½d.

autumn of 1953 to the spring of 1954, reflect mainly seasonal variations in supply: eggs were plentiful and much cheaper in spring, vegetables were somewhat dearer. Fats—except butter—were freely available, which probably accounted for the reduction in the price of dripping. The prices of some other foods had slightly risen. Pieces of fat boiling bacon could be obtained at a reasonable cost but high grade rashers were very expensive. We assumed that a housewife catering in accordance with a ' human needs ' income would buy either mostly cheap boiling bacon or else the less expensive streaky rashers, and that she would profit by the low spring price of eggs, increasing her purchases of these from 5 to 10 a week while reducing correspondingly those of other animal protein foods.

The cost of fresh vegetables given in Table I is perhaps rather higher than was strictly warranted by the actual conditions of the markets. But the differences and fluctuations in the prices of these vegetables were often substantial and it seemed better to err by taking the figure of total cost too high than by taking it too low.

In Table II we set out some minimum prices encountered in the course of our survey, though not all of them everywhere or at all times. The list is by no means complete; it could, in fact, have been made a good deal longer. These low-priced foods were tested for quality when it was considered necessary to ascertain whether they were generally acceptable, and no food that fell short of a satisfactory standard has found a place in our list. Also, all ' freak ' prices were disregarded, such as sudden markings-down shortly before closing time or in order to clear a small remnant, or prices made dependent on the buying of several foods together in fixed quantities—1 lb. of rice and 1 lb. of prunes; a tin of soup, a lb. of jam, and 1 lb. of noodles; etc.

TABLE II

Minimum Prices of Certain Foods, Spring 1954

	Unit	Price		Unit	Price
		s. d.			s. d.
Meat, pieces, boneless ...	℔	2 0	Pearl Barley	℔	7
Do., thin flank	℔	1 2	Lentils, dried	℔	11
Bacon, fat pieces ...	℔	1 0	Haricot Beans, dried	℔	11
Do., fat rashers ...	℔	1 4	Peas, dried	℔	10
Do., streaky rashers ...	℔	2 4	Potatoes	½ stone	1 0¾
Sausage meat, beef ...	℔	1 8	Cabbage	℔	4
Herrings	℔	10	Onions	℔	3
Kippers	℔	1 1	Carrots	℔	3
Bloaters	℔	1 0	Swedes	℔	2½
Eggs	egg	2¼	Parsnips	℔	2½
Cheese, English Cheddar	℔	1 10	Sugar, granulated ...	℔	7
Oatmeal	℔	8	Jam, plum, stoneless ...	℔	11
Macaroni	℔	11	Tea	℔	4 0
Semolina	℔	8	Raisins	℔	10

In our autumn paper of last year we introduced the concept of a ' simple ' diet—meaning a diet which, as it were, provided a kind of rock-bottom 'human needs' nutrition. This simple dietary was not intended as a pattern of consumption that could easily be adopted generally, but as a pointer to the potential culinary elasticity of a defined ‘ human needs ’ nutrition without overstepping the assessed ‘ human needs ’ cost. In the spring of 1954, the full ‘ human needs ’ diet required an expenditure of 63s. 7d. The ‘ simple ’ diet, not fundamentally different from and practically as nutritious as the ‘ human needs ’ diet, only cost 56s. 8¾d. (Table III). Hence a housewife catering on a budget that allowed her 63. 7d. per week for food might actually have spent on some types of food almost 7s. more than computed for our ‘ human needs ’ schedule without in consequence finding herself unable to give her family enough to eat—provided she was a skilful shopper and a reasonably good cook. In the autumn of 1953, the cost of this ‘ simple ’ diet (composed of exactly the same foods as in the spring, except for slight modifications in the case of fresh vegetables), amounted to 56s.; thus by March-April 1954 it had risen by about 1½ per cent. About the same percentage rise obtained for the unmodified full ‘ human needs ’ diet[1] although, as we saw above, the slightly modified diet only required an outlay higher by 1 per cent. This is what one would expect, since economical shopping depends very much on the individual housewife's adaptability in the face of changing conditions of general demand and supply. Considered in their absolute magnitudes

TABLE III

Simple Weekly Diet for Family of 5 Persons—Spring 1954

		Quantity	Average Price per Unit	Cost	Changes in Cost since Autumn 1953
			s. d.	s. d.	*s.* d.
1	Meat	2 lb 8 oz.	2 2	5 5	...
2	Bacon, fat pieces	1 lb 8 oz.	1 6	2 3	...
3	Herrings, Bloaters, etc.	3 lb 8 oz.	11¼	3 3¼	+ 3¾
4	Eggs	5 eggs	2½	1 0½	— 10
5	Cheese	8 oz.	2 4	1 2	+ 1
6	Milk, fresh, full cream	12 pints[2]	6½	3 9½[3]	...
7	*Do.*, skimmed condensed ...	6.4 tins[4]	11½	6 1½	...
8	Fats	3 lb 11 oz.[5]	1 5½	5 4¼	— 1¾
9	Bread	20 lb	4¼	7 1¾	...
10	Flour	3 lb 8 oz.	6	1 9	...
11	Rolled Oats	3 lb	9	2 3	...
12	Other Cereals	8 oz.	1 0	6	...
13	Sugar	1 lb 4 oz.	7½	9½	...
14	Jam, Syrup, etc.	8 oz.	1 0	6	...
15	Dried Legumes	3 lb	11	2 9	— 3
16	Potatoes	21 lb	2	3 7½	+ 6
17	Fresh Vegetables	13 lb 8 oz.	4½	5 1	+ 9¾
18	Tea and Condiments	...	...	3 11	+ 3
	Total Cost			56 8¾	+ 8¾

[1] The price unit is : eggs, one egg ; fresh milk, pint ; skimmed condensed milk, tin ; all other items, lb.

[2] Including 5 pints of free school milk. [3] Cost of 7 pints only.

[4] Equivalent (approximately) to 12 pints of fresh skimmed milk and 2 lb 10 oz. of sugar.

[5] 2 lb 3 oz. margarine, 10 oz. cooking fat, 14 oz. dripping.

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[1] *I.e.*, for the autumn 1953 diet at March-April 1954 prices.

these small percentages are, of course, insignificant; in their relative magnitudes, however, they serve to illustrate the point.

In Table IV the nutritional intake, per Male Adult Equivalent per day, from the ' human needs ' diet[1] is compared with the corresponding nutritional requirements as recommended by the British Medical Association. The autumn and the spring dietaries yield virtually the same data; only the figure obtained from the spring dietary for vitamin C is substantially lower than the corresponding figures obtained from the very similar autumn dietary. This is so because mature root vegetables carried over from last year's season loose some of their content of vitamin C during storage. Notwithstanding this, the nutritional intake from the spring diet as well as from the autumn diet would be satisfactory—and probably as good as that from most diets that are actually eaten. Even the substitution of spring vegetables for old root vegetables—which, to some extent, is the practice of people who can afford the higher expense—would have little or no effect on the actual intake of vitamin C, especially if some allowance is made for the quantitative adjustments that normally accompany such replacement. Salad vegetables, which are much favoured, are more filling than cooked vegetables and hence liable to be eaten in smaller quantities. Moreover, although raw vegetables retain more of their original content of vitamin C by the time they are served than do cooked vegetables, some of the common salad vegetables—tender bleached lettuce, celery, cucumber, chicory—contain only very small amounts of vitamins.

TABLE IV

Nutritional Intake from ' Human Needs ' Diet

	M.A.E.'s[1] of Family of 5 Persons[2]	Requirements per M.A.E. per Day	Intake from 'Human Needs' Diet per M.A.E. per Day	
			Autumn 1953	Spring 1954
Calories	3.73	3,000	3,100	3,100
Protein, gm.	4.43	70	84	84
Calcium, gm.	7.13	0.8	0.7	0.7
Iron, mgm.	5.40	10	13	13
Vitamin A, Intern. Units ...	5.00	3,000	3,400	3,400
Vitamin B_1, mgm.	4.68	0.9	1.6	1.6
Vitamin C, mgm.	5.00	30	60	33
Animal Protein as % of Total Protein Requirements			*48%*	*48%*

[1] Male Adult Equivalents.

[2] Husband, wife, 2 children aged between 7 and 13 years, 1 child aged 5 years.

A general warning regarding the figures of vitamin content computed from our ' human needs '—or any other—dietary may not be out of place.

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[1] The 'simple' diet would give practically the same figures of nutritional intake, except that some of the animal protein of the ' human needs ' diet would be replaced by vegetable protein.

The most that such figures can convey is an indication of whether or not under normal circumstances the diet under review can be assumed to be satisfactory with regard to its vitamin content. To ascertain the actual content with any degree of precision would require a laboratory analysis. Even then, the result obtained would hold good only for the one diet submitted to the analysis and only at the moment when this analysis was carried out; for seemingly identical foods can contain very different amounts of specific nutrients, and in particular the vitamin content of foods as bought and, even more so, when served, can vary within enormously wide ranges. Nevertheless, since all the basic data employed for computing our figures of nutritional intake from the dietaries in this series remain unchanged—except for seasonal adjustments—they do enable us to compare the relative nutritional value of one dietary with that of another, besides serving to provide a broad overall picture of the actual nutritional value of any particular diet.

T. SCHULZ.

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A. MADDISON : 'East-West Trade.'

Page 87, Table VI, Note on Source. For 'exported' read 'imported.'

Page 89, Table X, heading should read: 'Extra-European Exports f.o.b. to Eastern Europe, 1952' (and not 1953).